

CORRES. CONTROL
INCOMING LTR NO.

2189 RF 93

DUE
DATE

ACTION

DIST.	LTR	ENC
BENEDETTI, R.L.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BENJAMIN, A.	<input type="checkbox"/>	<input type="checkbox"/>
BERMAN, H.S.	<input type="checkbox"/>	<input type="checkbox"/>
CARNIVAL, G.J.	<input type="checkbox"/>	<input type="checkbox"/>
COPP, R.D.	<input type="checkbox"/>	<input type="checkbox"/>
CORDOVA, R.C.	<input type="checkbox"/>	<input type="checkbox"/>
DAVIS, J.G.	<input type="checkbox"/>	<input type="checkbox"/>
FERRERA, D.W.	<input type="checkbox"/>	<input type="checkbox"/>
HANNI, B.J.	<input type="checkbox"/>	<input type="checkbox"/>
HEALY, T.J.	<input type="checkbox"/>	<input type="checkbox"/>
HEDAH, T.G.	<input type="checkbox"/>	<input type="checkbox"/>
HILBIG, J.G.	<input type="checkbox"/>	<input type="checkbox"/>
KIRBY, W.A.	<input type="checkbox"/>	<input type="checkbox"/>
KUESTER, A.W.	<input type="checkbox"/>	<input type="checkbox"/>
LEE, E.M.	<input type="checkbox"/>	<input type="checkbox"/>
MANN, H.P.	<input type="checkbox"/>	<input type="checkbox"/>
MARX, G.E.	<input type="checkbox"/>	<input type="checkbox"/>
MCKENNA, F.G.	<input type="checkbox"/>	<input type="checkbox"/>
MORGAN, R.V.	<input type="checkbox"/>	<input type="checkbox"/>
PIZZUTO, V.M.	<input type="checkbox"/>	<input type="checkbox"/>
POTTER, G.L.	<input type="checkbox"/>	<input type="checkbox"/>
RILEY, J.H.	<input type="checkbox"/>	<input type="checkbox"/>
SANDLIN, N.B.	<input type="checkbox"/>	<input type="checkbox"/>
SATTERWHITE, D.G.	<input type="checkbox"/>	<input type="checkbox"/>
SCHUBERT, A.L.	<input type="checkbox"/>	<input type="checkbox"/>
SETLOCK, G.H.	<input type="checkbox"/>	<input type="checkbox"/>
SHEPLER, R.L.	<input type="checkbox"/>	<input type="checkbox"/>
SULLIVAN, M.T.	<input type="checkbox"/>	<input type="checkbox"/>
SWANSON, E.R.	<input type="checkbox"/>	<input type="checkbox"/>
WILKINSON, R.B.	<input type="checkbox"/>	<input type="checkbox"/>
WILSON, J.M.	<input type="checkbox"/>	<input type="checkbox"/>
ZANE, J.O.	<input type="checkbox"/>	<input type="checkbox"/>

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Reviewed for Addressee
Corres. Control RFP

5-18-93
DATE BY

Ref Ltr. #

Department of Energy

ROCKY FLATS OFFICE
P.O. BOX 928
GOLDEN, COLORADO 80402-0928

MAY 13 1993

93-DOE-05580

Mr. Martin Hestmark
U. S. Environmental Protection Agency, Region VIII
ATTN: Rocky Flats Project Manager, 8HWM-RI
999 18th Street, Suite 500, 8WM-C
Denver, Colorado 80202-2405

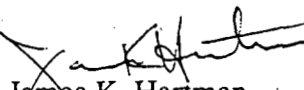
Mr. Gary Baughman
Hazardous Waste Facilities Unit Leader
Colorado Department of Health
4300 Cherry Creek Drive South
Denver, Colorado 80222-1530

Gentlemen:

Enclosed please find revised pages 11 and 15 of Final Technical Memorandum No. 5 (Soil Gas Sampling Plan for IHSS 115, Original Landfill) for Operable Unit 5 at the Rocky Flats Plant for your approval.

The text to be deleted is shown in strike-out format; text to be added has been underlined. The reporting limits for the target analytes in the OU5 soil gas study are being revised as shown on page 15. The lower sensitivity of the electron capture detector compounds results in the higher reporting limit for this compound. Results of the syringe-blank analyses were used to derive the reporting limits. Any detection above the revised reporting limits will be considered anomalous. This change has been discussed with Bonnie Lavelle and Joe Schieffelin of your staffs.

Sincerely,


James K. Hartman
Assistant Manager for Transition
and Environmental Restoration

Enclosure

cc w/Enclosure:
A. Rampertaap, EM-453
J. Ciocco, EM-453
E. Mast, EG&G
B. Lavelle, EPA
J. Schieffelin, CDH

ADMIN RECORD

EG&G
ROCKY FLATS PLANT
CORRESPONDENCE CONTROL

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The analytical results from the primary-grid and secondary-grid soil gas sampling will be reviewed, mapped, and interpreted in as rapid a manner as possible so that any tertiary samples that are necessary can be taken in a time frame that minimizes potential survey variations. Such variations may include weather, temperature, sampling crew, and sampling devices.

3.3 TERTIARY GRID

The results of the primary and secondary soil gas surveys will be reviewed to assess the locations of soil gas anomalies. It is anticipated that the soil gas survey will result in several locations exhibiting levels of contaminants at or below three times the laboratory detection limit, thereby providing a background level by which to determine anomalous readings. However, if fewer than five sample locations exhibit such low levels of contaminants, additional soil gas samples will be collected from the area bounded by the dirt-road loop just northwest of (and upgradient of) the IHSS 115 boundary. Soil gas concentration anomalies will be defined as those that are greater than ~~three times the laboratory detection limit~~ the reporting limit or greater than three times the observed non-zero background level. Any soil gas anomalies encountered will trigger the collection of additional samples offset by 20 feet. The additional 20-foot samples will extend to the first such sample at which the soil gas concentration is no longer in the anomalous range.

Figure 4 presents the proposed primary and secondary soil gas sampling grids. Currently, the total number of soil gas samples to be collected is 343: 73 samples at 100-foot centers, 96 samples at 50-foot centers, and 174 samples at 40-foot centers. An unknown quantity of tertiary sampling sites at 20-foot centers may be required if soil gas anomalies are detected.

The results of the soil gas survey will be verified by resampling 10 percent of the locations exhibiting anomalous readings and 10 percent of the locations exhibiting readings below three times the laboratory detection limit. The maximum number of repeat samples will be 27, so as not to exceed the 370 samples specified in the OU 5 Work Plan.

for the listed analytes will be in the sub- $\mu\text{g/L}$ range. Detection limits will be a function of detector type, injection volume, and specific analyte response.

<u>Analyte</u>	<u>Detection Limit ($\mu\text{g/L}$)</u>	<u>Reporting Limit ($\mu\text{g/L}$)</u>
Dichloromethane	0.75	<u>10.0</u>
Benzene	1.0	<u>1.0</u>
1,1,1-Trichloroethane	0.25	<u>2.0</u>
Carbon tetrachloride	0.10	<u>1.0</u>
Tetrachloroethene (PCE)	0.30	<u>1.0</u>
Trichloroethene (TCE)	0.25	1.0

Standards and Reagents

Standards are prepared EPA certified calibration standards from NSI Environmental Solutions. All procedures for standard preparation by the soil gas subcontractor are documented in the subcontractor's standards log book. Liquid standards will be prepared by measuring a known volume of standard solution to a class A volumetric flask and then subsequently diluted. Standards will be stored in glass vials with PTFE liners at 4°C.

Instrument Calibration

Gas chromatographic conditions will be established for analyte resolution and quantitation. Analytical calibration standards will be injected by direct injection techniques. All instrument calibration procedures will be performed by external calibration procedures.

Standards will be prepared at a minimum of three concentration levels for each of the analytes of interest by decanting stock solutions into a volumetric flask and diluting with an appropriate solvent. The low standard will be near, but above, the instrument detection limit.